**Product Description:** Tracer-653 is a deep-red fluorescent water soluble non-targeted vascular imaging agent [1] which is distributed passively through the blood vessels and enables imaging of vascularity and vascular leakage. It has been validated as an in vivo tracer dye for monitoring blood-brain-barrier disruption [2].

**Properties of Tracer-653:** The structure and physical properties of Tracer-653 are shown in Figs 1 & 2 and Table 1.

**Tracer-653 Versus Evans Blue Stain for Imaging BBB integrity:** Figure 3 shows the comparison between Evans Blue which is routinely used to monitor BBB disruption in animal models, and Tracer-653 accumulation into cryoinjured mouse brains. Ex vivo fluorescence images of Evans Blue and Tracer-653 in brains excised from mice that were dosed with probe either 6 h (Day 0) or 3 days (Day 3) after cryoinjury. The smaller effective size of Tracer-653 likely allows it to permeate into areas that are not accessible by the Evans Blue-albumin complex, thus increasing the area of tissue that is stained by Tracer-653.

**Significant Features of Tracer-653:**
- High chemical and photochemical stability
- Very low tissue uptake in living mice
- Deep red emission
- Rapid renal clearance and low phototoxicity
- Resistance to self-quenching
- Low affinity for albumin
- Strong pH-independent brightness over the pH range 6-10
- Compatible with longer λ probes for simultaneous 2-color in vivo imaging

**Formulation Procedure:** Add 1mL of PBS to dissolve the blue solid in vial and inject 100uL per 25g mouse.

<table>
<thead>
<tr>
<th>Catalog #</th>
<th>Product Name</th>
<th>Size/Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>TR-1001</td>
<td>Tracer-653</td>
<td>250 nM/10 doses based upon a 25g mouse</td>
</tr>
</tbody>
</table>

**References:**

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